

# Progress Evaluation: Milestone 3

**Project:** Cool Cyber Games: Interactive Platform for Teaching Cybersecurity

**Team Members:**

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**Client:** Sneha Sudhakaran | College of Engineering and Science: Department of Electrical Engineering and Computer Science

**Progress of current Milestone (progress matrix)**

| Task                               | Completion % | Anthony | Matthew | Brice | Ben | To Do:  |
|------------------------------------|--------------|---------|---------|-------|-----|---|
| Enhance website UI further         | 100%         | -       | X       | -     | -   | -   |
| Implement API connections for game | 25%          | X       | X       | -     | -   | Connect backend to frontend to display realtime |

|                                       |      |   |   |   |   |                        |
|---------------------------------------|------|---|---|---|---|------------------------|
| 1                                     |      |   |   |   |   |                        |
| Distribute and collect survey results | 25%  | X | X | - | - | Distribute and collect |
| Implement Test Demo Game 1            | 100% | X | - | - | - | -                      |
| Implement Test Demo Game 2            | 100% | - | - | x | - | -                      |
| Implement Test Demo Game 3            | 100% | - | - | - | x |                        |

**Discussion of each accomplished task (and obstacles) for the current Milestone:**

- **Enhance website UI further**
  - The site was revamped with a consistent visual theme, improved navigation, and more intuitive game panels. Still learning website dev, so it was challenging making it work for mobile too.
- **Implement API connections for Malware Maze**
  - API endpoints for score tracking, progress saving, and authentication were successfully integrated.
- **Distribute and collect survey results:**
  - Content already complete, will wait to distribute till June
- **Implement Test Demo Game 1**
  - Implement a video tutorial and basic gameplay with first core components

- **Implement Test Demo Game 2 (Master the Password)**
  - Finished the first level for the most part, working demo live on the website that takes around 8-10 minutes to complete. Main challenges were with the game development software (Unity), it was a very steep learning curve and led to a lot of time where I had to change directions with the game because I could not overcome technical challenges that I faced as a beginner to Unity and game development in general.
- **Implement Test Demo Game 3**
  - Main obstacle was narrowing the scope and content for audience

#### **Discussion of contribution of each team member to the current Milestone:**

- **Matthew Goembel:** Added the final boss/quiz to the Malware Maze games and finished polishing the game, so it's fully ready and playable now. Enhanced our website design, completely revamping the home, games, dashboard, and leaderboard pages. Created an intro video for Malware Maze and Presentation.
- **Anthony Clayton:**
  - Developed the first level of Master the Password game. This includes features such as two towns, 3 interior buildings, interactable doors and chests, NPCs that give tasks and teach the player about password security and brute force attacks. The first level should take a player around 8-10 minutes to complete. Created a video demo for the milestone presentation.
- **Ludendorf Brice:**
  - Created python idea and demo of original interactive x86 simulator. Upon

further discussion the idea was deemed out of the scope of our audience.

Therefore my game idea had changed to basic malware identification and i have started development on Godot.

- **Ben Allerton:** Started development on the web security game (name still undecided). Discussed with the client how to narrow our scope from XSS and SQL injection to basic web security concepts like popups, viruses, safe browsing practices, etc...

#### **Plan for the next Milestone (4)**

| Task   | Anthony | Matthew | Ben  | Brice |
|--|---------|---------|------|-------|
| Finish connecting Malware Maze to the backend and frontend | 25%     | 75%     | -    | -     |
| Started development of the next game(5)                    | -       | 100%    | -    | -     |
| Finish Development of Game 2                               | 100%    | -       | 100% | -     |
| Finish Development of Game 3                               | -       | -       | 100% | -     |
| Finish Development of Game 4                               | -       | -       | -    | 100%  |

|  |   |      |   |   |
|--|---|------|---|---|
| Complete Dashboard<br>and Leaderboard<br>Website pages | - | 100% | - | - |
|--|---|------|---|---|

#### Discussion of each planned task for the next Milestone (4)

- **Malware Maze API connections** - Points/Achievements from the game display on the frontend (dashboard, leaderboard)
- **Game 5 development** - Have core gameplay, mechanics, art, and UI done
- **Complete game 2** - Develop and Polish into a fully playable experience by adding 3 more levels that integrate all areas of password security.
- **Complete game 3** - Develop and Polish into a fully playable experience
- **Complete game 4** - Develop and Polish into a fully playable experience
- **Dashboard and Leaderboard pages** - UI finalized and up and running with data from current completed games

#### Date(s) of meeting(s) with Client during the current milestone:

- *See Faculty Advisor Date(s) of meeting(s) below*

#### Client feedback on the current milestone

*See Faculty Advisor Feedback below*

#### Date(s) of meeting(s) with Faculty Advisor during the current milestone: ...

- 4/2: Restructured the focus of the games accordingly
- 4/9: Discussed the development of all games

- 4/16: Went over preparation for milestone presentation
- 4/25: Went over deliverables for milestone 3 and discussed the next steps for milestone 4

**Faculty Advisor feedback on each task for the current Milestone**

- Task 1: Satisfied with the website and game panels
- Task 2: Good
- Task 3: Start distributing the end of summer
- Task 4: Good, continue making it simple for the user
- Task 5: Keep working towards the playable version with learning content
- Task 6: Keep working towards the playable version with learning content